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MOUSE SEQUENCE - mRNA

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MOUSE SEQUENCE - CODING

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HUMAN SEQUENCE - GENOMIC

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HUMAN SEQUENCE - CODING

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TABLE 7

MOUSE NOMENCLATURE

ICSGNM N/A
Celera mCG9110

HUMAN NOMENCLATURE

HGNC N/A
Celera hCG1641650

MOUSE SEQUENCE - GENOMIC

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MOUSE SEQUENCE - mRNA

MOUSE SEQUENCE - CODING

HUMAN SEQUENCE - GENOMIC

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[illegible]

[illegible]

HUMAN SEQUENCE - mRNA

HUMAN SEQUENCE - CODING

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HUMAN NOMENCLATURE	
HGNC	PRDM11
Celera	hCG25389

[illegible]

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[illegible]

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TABLE 9

MOUSE NOMENCLATURE
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 Celera mCG17918

HUMAN NOMENCLATURE
 HGNC N/A
 Celera hCG23764

MOUSE SEQUENCE - GENOMIC

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HUMAN SEQUENCE - mRNA

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HUMAN SEQUENCE - CODING

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BNSDOCID: <WO 03053224A2 | >

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BNSDOCID: <WO 03053224A2_1>

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[illegible]

MOUSE SEQUENCE - mRNA

CTGGCACTGGGATAGATATTACGTGCGGCCGCCGGCCACCATTGCTCCAGCGGTGCGGCCGGCGCCTGCTGCTGGCGCTGGTGGGCGCGCTGTG
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HUMAN SEQUENCE - GENOMIC

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222

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HUMAN SEQUENCE - CODING

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GCCATCTTCTAG

CLAIMS

We claim:

1. A recombinant nucleic acid comprising a nucleotide sequence selected from the group consisting of the sequences outlined in Tables 1-10.
2. A host cell comprising the recombinant nucleic acid of claim 1.
3. An expression vector comprising the recombinant nucleic acid according to claim 2.
4. A host cell comprising the expression vector of claim 3.
5. A recombinant protein comprising an amino acid sequence encoded by a nucleic acid sequence comprising a sequence selected from the group consisting of the sequences outlined in Tables 1-10.
6. A method of screening drug candidates comprising:
 - a) providing a cell that expresses a carcinoma associated (CA) gene comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10 or fragment thereof;
 - b) adding a drug candidate to said cell; and
 - c) determining the effect of said drug candidate on the expression of said CA gene.
7. A method according to claim 6 wherein said determining comprises comparing the level of expression in the absence of said drug candidate to the level of expression in the presence of said drug candidate.
8. A method of screening for a bioactive agent capable of binding to an CA protein (CAP), wherein said CAP is encoded by a nucleic acid comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10, said method comprising:
 - a) combining said CAP and a candidate bioactive agent; and
 - b) determining the binding of said candidate agent to said CAP.
9. A method for screening for a bioactive agent capable of modulating the activity of an CA protein (CAP), wherein said CAP is encoded by a nucleic acid comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10, said method comprising:
 - a) combining said CAP and a candidate bioactive agent; and
 - b) determining the effect of said candidate agent on the bioactivity of said CAP.
10. A method of evaluating the effect of a candidate carcinoma drug comprising:
 - a) administering said drug to a patient;
 - b) removing a cell sample from said patient; and
 - c) determining alterations in the expression or activation of a gene comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10.

11. A method of diagnosing carcinoma comprising:
 - a) determining the expression of one or more genes comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10, in a first tissue type of a first individual; and
 - b) comparing said expression of said gene(s) from a second normal tissue type from said first individual or a second unaffected individual;wherein a difference in said expression indicates that the first individual has carcinoma.
12. A method for inhibiting the activity of a CA protein (CAP), wherein said CAP is encoded by a nucleic acid comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10, said method comprising binding an inhibitor to said CAP.
13. A method of treating carcinomas comprising administering to a patient an inhibitor of an CA protein (CAP), wherein said CAP is encoded by a nucleic acid comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10.
14. A method of neutralizing the effect of an CA protein (CAP), wherein said CAP is encoded by a nucleic acid comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10, comprising contacting an agent specific for said CAP protein with said CAP protein in an amount sufficient to effect neutralization.
15. A polypeptide which specifically binds to a protein encoded by a nucleic acid comprising a nucleic acid selected from the group consisting of the sequences outlined in Tables 1-10.
16. A polypeptide according to claim 15 comprising an antibody which specifically binds to a protein encoded by a nucleic acid comprising a nucleic acid sequence selected from the group consisting of the sequences outlined in Tables 1-10.
17. A biochip comprising one or more nucleic acid segments selected from the group consisting of a nucleic acid of the sequences outlined in Tables 1-10 or fragments thereof.
18. A method of diagnosing carcinoma or a propensity to carcinoma by sequencing at least one CA gene of an individual.
19. A method of determining CA gene copy number comprising adding an CA gene probe to a sample of genomic DNA from an individual under conditions suitable for hybridization.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 July 2003 (03.07.2003)

PCT

(10) International Publication Number
WO 03/053224 A3

(51) International Patent Classification⁷: **C07H 21/02**,
21/04, C12Q 1/00, 1/68, G01N 33/48, 31/53, 31/567,
31/574, C12P 21/06, C12N 15/00, 15/09, 15/63

(21) International Application Number: PCT/US02/41776

(22) International Filing Date:
20 December 2002 (20.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/034,650 20 December 2001 (20.12.2001) US

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(71) Applicant (*for all designated States except US*): **SAGRES DISCOVERY** [US/US]; 2795 Second Street, Suite 400, Davis, CA 95616 (US).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **MORRIS, David, W.** [US/US]; 2481 Emerald Bay Drive, Davis, CA 95616 (US).

(88) Date of publication of the international search report:
4 September 2003

(74) Agents: **BASU, Shantanu** et al.; Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, CA 94304-1018 (US).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 03/053224 A3

(54) Title: NOVEL COMPOSITIONS AND METHODS FOR CANCER

(57) Abstract: The present invention relates to novel sequences for use in diagnosis and treatment of carcinomas, especially lymphoma carcinomas. In addition, the present invention describes the use of novel compositions for use in screening methods.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/41776

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07H 21/02,21/04; C12Q 1/00,1/68; G01N 33/48,31/53,31/567, 31/574;C12P 21/06; C12N 15/00,15/09,15/63
US CL : 536/23.1; 530/300, 350, 435/69.1, 320.1, 325, 4, 6, 7.1, 7.21, 7.23; 436/63, 64

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.1; 530/300, 350, 435/69.1, 320.1, 325, 4, 6, 7.1, 7.21, 7.23; 436/63, 64

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
GenCore databases, WEST, Medline

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database GenCore on STN, Accession number AF275818, YANG et al. 23 July 2000 (23.07.2000), 'A family of novel PR-domain (PRDM) genes as candidate tumor suppressors'. Direct Submission.	1
A	JIANG, G.-L et al. The yin-yang of PR-domain family genes in tumorigenesis. Histol. Histopathol. January 2000, Vol. 15, No. 1, pages 109-117.	1-19

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

08 May 2003 (08.05.2003)

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (703)305-3230

Date of mailing of the international search report

21 JUL 2003

Authorized officer

Alana M. Harris, Ph.D.

Telephone No. (703)308-0196